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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,987	02/17/2004	Ralph James Perry	NORTH-501A	8891

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EXAMINER

MCCRAW, BARRY CLAYTON

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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06/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/779,987	Applicant(s) PERRY ET AL.	
	Examiner B. Clayton McCraw	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33,35-37 and 39-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33,35-37 and 39-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/6/2007 have been fully considered but they are not persuasive. The applicant challenges the 35 U.S.C. 103(a) rejection of claim 33, submitting that the prior art fails to teach *closed cell* foam panels, such as the amended claims teach. In response, the examiner cites Retallick et al. (US 6,189,330), which teach a dry ice shipping container utilizing closed cell foam panels for insulation. The applicant further submits that combining Pool with Hollander fails to teach the closed cell foam panels as described in the amended claim. As stated above, the examiner cites Retallick et al. to illustrate the obviousness of closed cell foam panels used in dry ice shipping containers. Additionally, the applicant states multiple reasons as to why the combination of Pool and Hollander using open-celled foam panels teaches an inferior thermal insulation than the present invention. Again, Retallick et al. is cited to illustrate the obviousness of utilizing closed cell foam panels in dry ice shipping containers.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 33, 35-37, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pool (US 4,682,708) in view of Hollander et al. (US 5,111,957) in further view of Smith et al. (6,584,797) in further view of Thomas (US 4,892,193), and in further view of Retallick et al. (US 6,189,330). Pool explicitly teaches an outer container (11) containing the inner contents, the container made of cardboard (corresponding to the claimed corrugated fiberboard; col.4, line 15), a plurality of foam panels (13) disposed within the outer container, a barrier bag (12) filled with a plurality of dry ice pellets enveloping the inner contents (col.3, lines 47-49; used in plastic bag, 12), a lid placed on the barrier bag over the inner contents (15), the open top of the barrier bag is folded over the inner container and secured by filament reinforced tape (col. 5, lines 10-15), and the outer container being secured by filament reinforced tape (col. 5, lines 13-15). Pool does not explicitly teach the foam panels in abutting contact with the inner surface of the outer container or the barrier bag in abutting contact with the interior surface of the foam panels. Instead Pool teaches the foam panels within the barrier bag. Hollander et al. explicitly teach the foam panels (col. 3, lines 40-45) in abutting contact with the inner surface of the outer container (25) and the barrier bag (11) in abutting

contact with the interior surface of the foam panels (Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the container of Pool with the features of Hollander et al. because providing foam panels outside of the refrigeration advantageously allows for a more insulated and efficient cooling process, since it is well known that insulation will keep out heat, if desired (col. 2, lines 44-55).

Additionally, Pool does not explicitly teach an inner container. Smith et al. teach an inner container (612) within an outer container (614) for a temperature controlled shipping apparatus. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the temperature controlled shipping apparatus as taught by Pool with the inner container as taught by Smith et al. since an inner container advantageously adds to the level of protection as well as insulation for the contents within.

Additionally, Pool et al., as modified by Hollander et al. and Smith et al., teach the aspects of the present invention as described above, but fail to teach at least one spacer disposed around the inner contents within the foam panels such that a cavity is formed between the inner contents and foam panels and the spacer having a thickness of about 2 inches. Thomas explicitly teaches at least one spacer disposed around the inner contents within the foam panels such that a cavity is formed between the inner contents and foam panels (col. 3, lines 12-22) and the spacer having a thickness of about 2 inches (col. 3, lines 23-37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the temperature controlled

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shipping apparatus as taught by Pool et al., Hollander et al. and Smith et al., with the spacer cavity as taught by Thomas since spacers are commonly used in shipping applications to advantageously protect the shipping contents.

Additionally, Pool et al., as modified by Hollander et al., Smith et al., and Thomas, teach the aspects of the present invention as described above, but fail to teach the foam panels comprising closed cell foam panels. Retallick et al. explicitly teach a dry ice shipping container with closed cell foam panels (col. 6, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the temperature controlled shipping apparatus as taught by Pool et al., Hollander et al., Smith et al., and Thomas, with the closed cell foam panel as taught by Retallick et al., since it is known that closed cell foam panels provide greater insulating efficiency than open cell foam panels.

Regarding the limitations of claim 37, a foam panel thickness of about 2 inches is considered to be a result effective variable, wherein the cooling capacity will increase with an increasing foam panel thickness. Thus, while Pool does not explicitly teach a foam panel with at least a 2 inch thickness one of ordinary skill in the art would have known by increasing the foam panel thickness, a longer cooling time would advantageously result.

Regarding the limitations of claim 39, dry ice pellets having a thickness of at least 2 inches are considered to be a result effective variable, wherein the amount and length of time of cooling provided will directly increase as a result of dry ice thickness. Thus, while Pool does not explicitly teach a layer of dry ice pellets having at least a 2 inch

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thickness one of ordinary skill in the art would have known by increasing the dry ice thickness, a longer cooling time would advantageously result.

Regarding the phrase "filament reinforced tape," it should be noted that the examiner submits that filament reinforced tape is standard and conventional for shipping processes and falls within the meets and bounds of Pool's statement of sealing by "conventional means" (col. 5, line 14).

5. Claims 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pool (US 4,682,708) in view of Hollander et al. (US 5,111,957) in further view of Smith et al. (6,584,797) in further view of Thomas (US 4,892,193) in further view of Retallick et al. (US 6,189,330) and in further view of Henning et al. (US 5,600,958). Pool et al. explicitly teach all of the elements of the present invention as stated above, but do not teach a plurality of internal containers for individually packing materials therein. Henning et al. explicitly teach a plurality of internal containers for individually packing materials therein (40; Figures 1 and 2); and a plurality of lids for the internal containers (50; Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the temperature controlled shipping apparatus as taught by Pool et al. with the internal containers as taught by Henning et al. since certain applications may require multiple sealed goods to be shipped simultaneously and it would only require routine skill in the art to multiply the concept of a single container used for single goods.

6. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable Pool (US 4,682,708) in view of Hollander et al. (US 5,111,957) in further view of Smith et al.

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(6,584,797) and in further view of Thomas (US 4,892,193) in further view of Retallick et al. (US 6,189,330) in further view of Henning et al. (US 5,600,958) and in further view of Farison et al. (US 6,398,029). Pool et al. teach aspects of the present invention, but do not teach a cellulosic cushion disposed in the inner container. Farison et al. explicitly teach a cellulosic cushion for use in shipping containers (Figures 1-6; col. 18, lines 1-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the temperature controlled shipping apparatus as taught by Pool et al. with the cellulosic cushion as taught by Farison et al. since any increased padding within a shipping container advantageously increases its safety.

7. Claims 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pool (US 4,682,708) in view of Hollander et al. (US 5,111,957) in further view of Smith et al. (6,584,797) and in further view of Thomas (US 4,892,193) in further view of Retallick et al. (US 6,189,330) in further view of Henning et al. (US 5,600,958) and in further view of Bane, III (US 5,441,170). Pool et al. teach aspects of the present invention, but do not teach upper or lower holding pads in the inner container. Bane, III explicitly teaches upper (44) and lower (46) holding pads in an inner container. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the temperature controlled shipping apparatus as taught by Pool et al. with the upper and lower holding pads as taught by Bane, III, since any form of extra padding above or below an object within a shipped container will advantageously increase safety during shipping.

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8. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pool (US 4,682,708) in view of Hollander et al. (US 5,111,957) in further view of Smith et al. (6,584,797) and in further view of Thomas (US 4,892,193) in further view of Retallick et al. (US 6,189,330) in further view of Henning et al. (US 5,600,958) in further view of Bane, III (US 5,441,170) and in further view of Bessett et al. (US 3,732,976). Pool et al. teach aspects of the present invention, but do not teach a recessed portion conformal to a periphery of a bottom surface of internal contents. Bessett et al. explicitly teach a recessed portion conformal to a periphery of a bottom surface of internal contents (Figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the temperature controlled shipping apparatus as taught by Pool et al. with the recessed portion of Bane III, since providing a recessed portion in a shipping container advantageously prevents movement of the contents within.

9. Claims 46-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pool (US 4,682,708) in view of Hollander et al. (US 5,111,957) in further view of Smith et al. (6,584,797) in further view of Retallick et al. (US 6,189,330) and in further view of Defelice et al. (US 2002/0189278). Pool et al. explicitly teach the elements of the present invention as described above, but fail to teach the interior bag having zip-lock capabilities. Defelice et al. explicitly teach the interior bag having zip-lock capabilities (paragraph 0008) as prior art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the temperature controlled shipping apparatus of Pool et al. with the zip-lock bag of Defelice et al. since zip-lock features are

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commonly utilized in bags to advantageously provide a more efficient seal than simply folding or taping allow.

10. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pool (US 4,682,708) in view of Hollander et al. (US 5,111,957) in further view of Smith et al. (6,584,797) in further view of Retallick et al. (US 6,189,330) in further view of Defelice et al. (US 2002/0189278) and in further view of Belisle (US 4,823,956). Pool et al. teach the aspects of the present invention as described above, but fail to teach the foam panels being sealed by tape. Belisle explicitly teaches foam panels being sealed by tape (col. 2, lines 8-16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the temperature controlled shipping apparatus as taught by Pool et al. with the foam panel tape as taught by Belisle since it would be advantageous in any shipping application to hold the contents of a package together to prohibit movement.

11. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pool (US 4,682,708) in view of Hollander et al. (US 5,111,957) in further view of Smith et al. (6,584,797) in further view of Retallick et al. (US 6,189,330) in further view of Defelice et al. (US 2002/0189278) and in further view of Benedetti et al. (US 6,209,341). Pool et al. teach the aspects of the present invention as described above, but fail to teach but do not teach the barrier bag having a plurality of vent holes with diameters approximately $\frac{1}{4}$ inches. Benedetti et al. explicitly teach a plurality of vent holes for a container containing dry ice (col. 5, lines 8-12) having a diameter of approximately $\frac{1}{4}$ inches (col. 5, lines 8-12). It would have been obvious to one having ordinary skill in the art at the time the

invention was made to combine the temperature controlled shipping apparatus as taught by Pool et al. with the vent holes as taught by Benedetti et al. as it is imperative for any container of carbon dioxide to have some form of ventilation so the structure does not explode as gases are emitted.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Clayton McCraw whose telephone number is (571) 272-3665. The examiner can normally be reached on M-F 8:30AM-5:00PM.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



BCM
5/22/2007

FRANTZ JULES
SUPERVISORY PATENT EXAMINER

